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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/855,687	05/16/2001	Corinne Rosier	208557US2	9203

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OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER

FERRIS, DERRICK W

ART UNIT	PAPER NUMBER
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2663

DATE MAILED: 02/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/855,687

Applicant(s)

ROSIER ET AL.

Examiner *W*

Derrick W. Ferris

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 4-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 7-11 and 14-22 is/are rejected.
- 7) ☒ Claim(s) 4-6, 12 and 13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/21/2005 has been entered.

Response to Arguments

2. This Office action is in response to applicant's paper filed 12/21/2005. **Claims 1, 4-22** as amended are still in consideration for this application. Applicant has canceled claims 2-3.

Applicant has added claims 19-22.

3. The examiner **withdraws** the anticipated rejection to *Ott* and corresponding obviousness rejections. In particular, the rejection is replaced with a new rejection based on the claims as necessitated by amendment. The following rejection is made non-final since applicant paid for a continued examination.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. **Claims 1, 9, and 14-22** are rejected under 35 U.S.C. 102(b) as being anticipated by U.S.

Patent No. 5,828,677 A to *Sayeed et al.* ("*Sayeed*").

As to **claim 1**, *Sayed* teaches in figure 1 a data source as the transmitter and a receiver as the data sent to the receiver which is in packet form, see e.g., column 3, lines 35-43. With respect to an explicit mode and an implicit mode, see e.g., figure 1b with respect to no coding or BASIC (i.e., an implicit mode) and the other coding methods such as REED-SOLOMON CODING (i.e., explicit modes). Specifically, the identifier is the error correction provided in the packet. With respect to, and the process includes at least one first transfer stage from said explicit mode to said implicit mode and/or at least one second transfer stage from said implicit mode to said explicit mode, selection of one of the first and second transfer stages determined as a function of at least one-predetermined transfer criterion associated with the packet, *Sayed* teaches a pre-determined transfer criterion as either ACK or NAK. In particular, a first coding method is selected. Based on the number of ACK or NAKs received from the receiver, a second coding method may then be selected. See e.g., column 5, lines 33-61. With respect to the limitation, wherein the receiver maintains an error flag relating to said data transmissions, and said error flag including at least two states: a raised state after the receives an error message and a lowered state after said received correctly receives an explicit packet, see e.g., column 5, lines 33-40. In particular, the error message is either the ACK or NAK messages. Specifically, the “raised state” is a higher form of FEC based on the number of NACK signals. The state may further be lowered based on the received number of ACK signals. See e.g., the state-flow diagram in figure 4 where a raised state is e.g., the transition from state U to state P1 and a lowered state is from state P2 to U.

As to **claim 9**, see e.g., figure 4 with respect to the state diagram. In particular, note that the receiver receives a ACK from the transmitter (i.e., an internal/external event).

As to **claim 14**, see similar rejection to claim 9 where figure 4 teaches ACK for at least state P2 which is an explicit state.

As to **claim 15**, see e.g., column 3, lines 1-43 with respect to at least “go-back-N” ARQ protocol.

As to **claim 16**, see similar rejection to claim 1.

As to **claim 17**, see similar rejection to claim 1.

As to **claim 18**, see similar rejection to claim 1. Note that the receiver is the transmitter for the purpose of the rejection since the receiver transmits packets as recited in the claims.

As to **claims 19-22**, the variables relating to said identifiers of said data packets are at least the compression type of the packet and the state variables relating to an implemented protocol are at least the state variables used to implement e.g., figure 4.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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7. **Claims 7 and 10** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,828,677 A to *Sayeed et al.* ("*Sayeed*") in view of "Data and Computer Communications" to *William Stallings* ("*Stallings*").

As such to **claim 7**, *Sayeed* discloses ARQ but may not teach the fundamentals of ARQ. Thus, *Sayeed* is silent or deficient to the further limitations with respect to ARQ.

Stallings teaches the further recited limitation above at e.g., at pages 159-176. In particular, with respect to a conventional acknowledgement, see e.g., the section on page 163 with respect to sliding-window protocol. One example of an advance acknowledgement message is a receiver not ready (RNR) message.

The proposed modification of the above-applied reference(s) necessary to arrive at the claimed subject matter would be to modify *Sayeed* by clarifying that details or the ARQ method.

As such, examiner notes that it would have been obvious to one skilled in the art prior to applicant's invention to include the above limitation. In particular, the motivation for modifying the reference or to combine the reference teachings would be for error and flow control. In particular, *Stallings* cures the above-cited deficiency by providing a motivation found at e.g., page 158 with respect to data link control. Second, there would be a reasonable expectation of success since both references teach ARQ. Thus the references either in singular or in combination teach the above claim limitation(s).

As to **claim 10**, in addition to the reasoning provided for claim 7, see e.g., using a sliding window as taught by *Stallings* where the parameters or the window are EoW and

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BoW. In addition, the ARQ method sends acknowledgements sequentially, see e.g., page 173.

8. **Claims 8 and 11** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,828,677 A to *Sayeed et al.* (“*Sayeed*”) in view of “Data and Computer Communications” to *William Stallings* (“*Stallings*”) in further view of “ARQ Error Control for Fading Mobile Channels” to *Zorzi et al.* (“*Zorzi*”).

As to **claim 8**, in addition to the reasoning provided for claim 7. *Sayeed* and *Stallings* may be further silent or deficient to a clock and the states associated with a clock. *Zorzi* teaches the above limitations since *Zorzi* teaches ARQ where the states of a clock are taught as the combination of ARQ and the timer as taught by the reference. Hence examiner notes that it would have been obvious to one skilled in the art prior to applicant’s invention to teach a clock associated with ARQ. In particular, one skilled in the art prior to applicant’s invention would have been motivated to use a clock to avoid lost feedbacks. As such, *Zorzi* teaches the above motivation e.g., at page 446.

As to **claim 11**, the ARQ method sends acknowledgements sequentially, see e.g., page 173. With respect to a clock, see similar reasoning in the rejection for claim 8.

Allowable Subject Matter

9. **Claim 4-6, 12, and 13** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Derrick W. Ferris whose telephone number is (571) 272-3123.

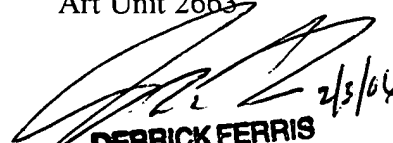
The examiner can normally be reached on M-F 9 A.M. - 4:30 P.M. E.S.T.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on (571)272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DWF

Derrick W. Ferris
Examiner
Art Unit 2663


DERRICK FERRIS
PATENT EXAMINER